



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,216	02/20/2001	Lee Codel Lawson Tarbotton	NA11P503/00.147.01	3943
28875	7590	02/07/2007		
Zilka-Kotab, PC P.O. BOX 721120 SAN JOSE, CA 95172-1120			EXAMINER CHAI, LONGBIT	
			ART UNIT	PAPER NUMBER
			2131	

  

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/785,216

Applicant(s)

TARBOTTON ET AL.

Examiner

Longbit Chai

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-8,11-15 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-8,11-15 and 18-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Presently, pending claims are 1, 4 – 8, 11 – 15 and 18 – 21.

### *Response to Arguments*

2. Applicant's arguments with respect to the subject matter of the instant claims have been fully considered but are not persuasive.
3. As per claim 1, Applicant argues: Arnold does not teach "library [that] includes data specifying which of said plurality of types of warnings should be issued in response to a particular detected computer virus". Examiner respectfully disagrees because Arnold teaches a plurality of types of warnings are issued in response to a particular detected computer virus and such a plurality of types of warnings as listed as follows:
  - warnings may include the existence and the signature of the entity (Arnold : Column 29 Line 26 – 32: the warning may contain different variety of notifications, for example, (i) whether or not the undesired software entity has been removed and (ii) what is the particular signature of the virus has been identified – i.e. the notification of the existence and the signature of the entity, as taught by Arnold).
  - warnings may describe the situations including, for example, (a) whether a virus can be removed or not as well as (b) whether the infected file can be restored / recovered or not (Arnold : Column 24 Line 45 – 57).

Art Unit: 2131

- Besides, Examiner notes a library is merely a collection of computer data structures and utilities that can be used by computer application programs as needed.

4. As per claim 4, Applicant argues: Arnold does not teach “warning to a user that said target computer file may have suffered irreparable damage includes an option to add a notification message into said target computer file”. Examiner respectfully disagrees because Arnold teaches, additionally, a warning message can be added, describing the situations including, for example, (a) whether a virus can be removed or not as well as (b) whether the infected file can be restored / recovered or not (Arnold : Column 24 Line 45 – 57). Besides, the situation would evidently include the target computer file affected by the virus.

5. As per claim 5, Applicant argues: Waldin does not teach “notification message includes authentication data identifying said target computer file into which it was inserted”. Examiner respectfully disagrees because (a) Arnold reference is relied upon providing a notification message associated with the virus detection actions (Arnold : Column 29 Line 26 – 32 and Column 24 Line 45 – 57) and (b) Waldin reference is relied upon providing a digital signature validation to authenticate either a message or a file in an antivirus-enhanced computer system (Waldin : Abstract, Column 6 Line 57 / Line 67). Therefore, Arnold in view of does teach notification message includes authentication data identifying said target computer file into which it was inserted.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 – 4, 7 – 11, 14 – 18 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold (Patent Number: 5440723).

As per claim 1, 8 and 15, Arnold teaches a computer program product comprising a computer program operable to control a computer to apply a plurality of anti computer virus tests to a target computer file, said computer program comprising:

- (i) virus scanning logic for detecting if said target computer file is infected with a computer virus (Arnold : see for example, Column 24 Line 44 – 45);
- (ii) virus cleaning and file repair logic for cleaning said target computer file by removing a detected computer virus from said target computer file (Arnold : see for example, Column 24 Line 47 – 48) and for repairing any changes caused by said detected computer virus to said target computer file by reversing said changes (Arnold : see for example, Column 24 Line 51 – 53);
- (iii) virus identifying logic for detecting whether or not said detected computer virus is of a type that can cause changes to said target computer file that cannot be reversed

Art Unit: 2131

by said virus cleaning and file repair logic (Arnold : see for example, Column 24 Line 54 – 57); and

(iv) warning generating logic, responsive to said virus identifying logic detecting that said detected computer virus is of a type that can cause changes to said target computer file that cannot be reversed by said virus cleaning and file repair logic for generating a warning to a user that said target computer file may have suffered irreparable damage (Arnold : see for example, Figure 3 Element F, J & P and Column 24 Line 54 – 57).

Wherein said virus scanning logic is responsive to a library of tests to detect different computer viruses, said library including data specifying which computer viruses can cause damage that cannot be repaired by said virus cleaning and repair logic (Arnold: see for example, 23 Line 23 – 33, Column 29 Line 36 – 38, Column 23 Line 40 – 45 and Figure 3 (O) and Column 23 Line 58 – 61: (a) a library tests are interpreted as the virus test programs, as taught by Arnold, such as VIRSCAN, CHECKUP and etc (b) Arnold teaches “a library of tests to detect different computer viruses” (Arnold: Column 23 Line 23 – 33) (c) Arnold also teaches “data specifying which computer viruses can cause damage that cannot be repaired by said virus cleaning and repair logic” (Arnold: Column 29 Line 36 – 38 and Column 23 Line 40 – 45: Arnold also teaches using data for specific known types of virus signatures designated for repair mechanisms and besides, if VIRSCAN fails to identify any of the changes to the executables as a known virus would make, the system also attempts to capture a copy of any unknown virus after using decoy programs (Figure 3 (O) and Column 23 Line 58 – 61 – This virus is

Art Unit: 2131

indeed one of the computer viruses that can cause damage that cannot be repaired by said virus cleaning and repair logic as recited in the claim limitation since the changes can not be identified and thereby it has no way to be recovered / repaired the damages).

Wherein said warning generating logic can generate a plurality of different types of warning to a user (Arnold : Column 24 Line 45 – 57: warnings may describe the situations including a variety of cases, for example, (a) whether a virus can be removed or not as well as (b) whether the infected file can be restored / recovered or not) that said target computer file may have suffered irreparable damage and said library includes data specifying which of said plurality of types of warning should be issued in response to a particular detected computer virus (Arnold: Column 29 Line 36 – 38, Column 23 Line 23 – 33, Column 24 Line 21 – 26 and Column 23 Line 40 – 45: (a) Arnold teaches “warning to a user that said target computer file may have suffered irreparable damage”. Examiner notes “if VIRSCAN fails to identify any of the changes to the executables as a known virus would make”, as taught by Arnold, is equivalent to that the target computer file may have suffered irreparable damage caused by the virus since the changes can not be identified and thereby the damage has no way to be recovered / repaired) (b) Arnold also teaches “said library includes data specifying which of said plurality of types of warning should be issued in response to a particular detected computer virus” (Arnold: Column 29 Line 36 – 38, Column 23 Line 23 – 33, Column 24 Line 21 – 26 and Column 23 Line 40 – 45: all different types of warning is

Art Unit: 2131

issued depending upon different situations where signature data or copies of any unknown virus is effectively used along with the library test files, as taught by Arnold).

As per claim 4, 11 and 18, Arnold teaches the claimed invention as described above (see claim 21, 8 and 15 respectively). Arnold further teaches warning to a user that said target computer file may have suffered irreparable damage includes an option to add a notification message into said target computer file (Arnold : Column 24 Line 45 – 57 and Column 23 Line 41 – 42 and Column 24 Line 12 – 15 and Figure 3 Element F/J/K/O/G: warnings may describe the situations including a variety of cases, for example, (a) whether a virus can be removed or not as well as (b) whether the infected file can be restored / recovered or not. Besides, the situation would evidently include the target computer file affected by the virus).

As per claim 7, 14 and 21, Arnold teaches the claimed invention as described above (see claim 21, 8 and 15 respectively). Arnold further teaches upon detection of a target computer file infected with a computer virus that may have caused irreparable damage, said virus cleaning and repair logic presents a user with different options for further processing of said target file than if said target computer file were infected with a computer virus that only causes repairable damage (Arnold : see for example, Column 21 Line 25 – 27).



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5 – 6, 12 – 13 and 19 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold (Patent Number: 5440723), in view of Waldin (Patent Number: 6094731).

As per claim 5, 12 and 19, Arnold teaches the claimed invention as described above (claim 4, 11 and 18 respectively). Arnold does not disclose expressly notification message includes authentication data identifying said target computer file into which it was inserted.

Waldin teaches notification message includes authentication data identifying said target computer file into which it was inserted (Waldin: see for example, Column 6 Line 65 – 67: Examiner notes (a) Arnold reference is relied upon providing a notification message associated with the virus detection actions (Arnold : Column 29 Line 26 – 32 and Column 24 Line 45 – 57) and (b) Waldin reference is relied upon providing a digital signature validation to authenticate either a message or a file in an antivirus-enhanced computer system).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Waldin within the system of Arnold because (a) Arnold teaches immunizing a computer system by automatically detecting and extracting a signature from a computer virus (Arnold : see for example, Column 2 Line 34 – 42) and (b) Waldin further teaches using the authentication and digital signature techniques to handle virus infection situations in an antivirus-enhanced computer system (Waldin: Abstract, Column 6 Line 50 – 67 and Column 7 Line 1 – 2).

As per claim 6, 13 and 20, Arnold teaches the claimed invention as described above (claim 4, 11 and 18 respectively). Arnold does not disclose expressly notification message includes an electronic signature applied by said warning generating logic.

Waldin teaches notification message includes an electronic signature applied by said warning generating logic (Waldin: see for example, Column 6 Line 50 – 56: Arnold reference is relied upon providing a notification message associated with the virus detection actions and Waldin reference is relied upon providing a digital signature validation to authenticate either a message or a file (Waldin: Column 6 Line 57 / Line 67). Same rationale applies here as above in rejecting the claim 5.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner can normally be reached on Monday-Friday 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2131

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Longbit Chai  
Examiner  
Art Unit 2131

LBC *LBC*

*AYAZ SHEKH*  
AYAZ SHEKH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100